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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/980,651	01/24/2002	Tetsuya Tsunekawa	1319-01	7108

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SCHNADER HARRISON SEGAL & LEWIS, LLP
1600 MARKET STREET
SUITE 3600
PHILADELPHIA, PA 19103

EXAMINER

SIMONE, CATHERINE A

ART UNIT

PAPER NUMBER

1772

DATE MAILED: 05/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/980,651

Applicant(s)

TSUNEKAWA ET AL.

Examiner

Catherine Simone

Art Unit

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1, 4, 7 and 9** are rejected under 35 U.S.C. 102(b) as being anticipated by Greener et al. (5,599,658).

Greener et al. discloses a biaxially oriented polyester film for use in a capacitor having high heat resistance comprising a polyester as a main component (see col. 1, lines 50-52) and a polyimide (see col. 1, lines 50-53), and having a glass transition temperature in the range of 105°C to 145°C (see col. 3, line 5 and col. 5, Table 2) and an elongation at break in a machine direction of 70% to 150% (see col. 5, Table 2, line 46). Regarding **claim 4**, note the polyimide is a polyimide composed of polyether imide (see col. 1, line 46). Regarding **claim 7**, note the polyimide has a content in the range of 5 to 30% by weight based on the total weight of the film (see col. 1, lines 50-53). Regarding **claim 9**, note a metallized layer disposed on at least one surface of the film (see col. 3, lines 59-64).

In regards to the recitation “for use in a capacitor having high heat resistance”, it has been held that a recitation with respect to the manner in which a claimed product is intended to be employed does not differentiate the claimed product from a prior art product satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 3 and 10** are rejected under 35 U.S.C. 103(a) as being unpatentable over Greener et al. (5,599,658) in view of White et al. (4,141,927).

Greener et al. discloses a biaxially oriented polyester film comprising a polyester as a main component (see col. 1, lines 50-52) and a polyimide (see col. 1, lines 50-53), and having a glass transition temperature in the range of 105°C to 145°C (see col. 3, line 5 and col. 5, Table 2) and an elongation at break in a machine direction of 70% to 150% (see col. 5, Table 2, line 46). However, Greener et al. fails to disclose the polyester being composed mainly of ethylene terephthalate and a capacitor comprising the film. White et al. teaches it is old and well-known in the analogous art to have a polyester film composed mainly of ethylene terephthalate (see col. 4, lines 64-66) and using the film in a capacitor (see col. 9, line 22) for the purpose of providing excellent insulation volume resistance and insulation breakdown voltage at high ambient temperatures.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have the polyester film in Greener et al. be composed of ethylene terephthalate and to have used the film in a capacitor as suggested by White et al. in order to provide excellent insulation volume resistance and insulation breakdown voltage at high ambient temperatures.

5. **Claims 2, 5, 6 and 8** are rejected under 35 U.S.C. 103(a) as being unpatentable over Greener et al. (5,599,658).

Greener et al. discloses the claimed invention except for a surface roughness (Ra) in the range of 10 nm to 140 nm, an onset temperature of dielectric loss ($\tan \delta$) in the range of 85°C to 120°C, an insulation volume resistance (IR) in the range of $1.0 \times 10^{14} \Omega\cdot\text{cm}$ to $5.0 \times 10^{16} \Omega\cdot\text{cm}$ at 125°C, and a thermal shrinkage of not more than 2.5% after a lapse of 30 minutes at 150°C. However, these specific characteristics would be readily determined through routine experimentation by one having ordinary skill in the art depending on the desired end results as shown by Greener et al. Therefore, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have determined a surface roughness (Ra) in the range of 10 nm to 140 nm, an onset temperature of dielectric loss ($\tan \delta$) in the range of 85°C to 120°C, an insulation volume resistance (IR) in the range of $1.0 \times 10^{14} \Omega\cdot\text{cm}$ to $5.0 \times 10^{16} \Omega\cdot\text{cm}$ at 125°C, and a thermal shrinkage of not more than 2.5% after a lapse of 30 minutes at 150°C in White et al., since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art absence of showing unexpected results. *In re Boesch and Slaney*, 205 USPQ 215 (CCPA 1980).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patents are cited for further teachings of polyester films similar to that instantly disclosed.


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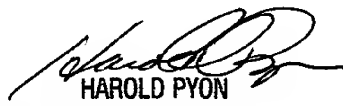
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Catherine Simone whose telephone number is (703) 605-4297. The examiner can normally be reached on 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on (703) 308-4251. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.


Catherine Simone
Examiner
Art Unit 1772

May 13, 2003


HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772 5/13/03